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09/843,629	04/26/2001	Mototsugu Abe	09792909-5003	9203

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EXAMINER
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VENT, JAMIE J

ART UNIT	PAPER NUMBER
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2621

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/843,629

Applicant(s)

ABE ET AL.

Examiner

Jamie Vent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-38 and 40-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-38 and 40-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Response to Arguments***

1. Applicant's arguments filed April 11, 2007 have been fully considered but they are not persuasive. On pages 15-19 applicant argues that Nafeh in view of Takahashi et al fails to disclose, suggest, or teach the following limitation, "an index information extracting means for extracting information from the first signal section to be used as a user-selectable index representing the recorded first signal" as described in Claim 1. Nafeh discloses a detecting apparatus for detecting the first AV signal section as described in Column 2 Lines 40+. The first signal is extracted, processed and recorded as disclosed by Nafeh in Column 2 Lines 20+ and shown in Figure 1a. The system, as taught by Nafeh, lacks an index extracting means. Takahashi et al teaches a system that extracts index information as seen in Figure 19 and further described in Column 14 Lines 59+ through Column 15 Lines 1-12. Furthermore, it is disclosed "the AV data file 40 is accessed on the basis of the read address information, whereby a desired portion can be search-reproduced" as recited in Claim 15 Lines 5-7 and thereby further stating that the index information is extracted from an AV signal. The AV signal that is detected by Nafeh is further extracted and made into an index as taught by Takahashi et al. Furthermore, the index that is extracted from the first signal further processed as described in Column 18 Lines 24-35 and thus providing a user-selectable index of the AV data stream.

On pages 19-21, applicant further argues that Nafeh in view of Takahashi et al fails to disclose, suggest, or teach the following limitation, "a characteristic value

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extracting means for extracting the characteristic values characterizing the first signal from the detected first signal section, wherein said recording means records the characteristic values of the first signal in association with the first signal" as recited in Claim 2. Nafeh discloses in Column 2 Lines 60+ through Column 3 Lines 1-17 describe the detecting and pre-processing of the extraction of characteristic values are processed. Further describing that once a "pattern has been classified as belonging to a certain class, a control signal will be generated and sent to the designated storage, recording or displaying device to record, pause or fast forward is processed" and further described in Column 1 Lines 50-55 that the characteristic values are "to be stored, recorded, or displayed in respective storage, recording or display devices" and thereby meets the claimed limitation.

On pages 21 applicant further argues that Nafeh in view of Takahashi et al fails to disclose, suggest, or teach the following limitation, "comparing means for comparing characteristic values respectively characterizing two first signals recorded by said recording means and discarding one of the recorded two first signals when the characteristic values of the two first signals are determined to be substantially the same" as recited in Claims 18 and 44. It is disclosed in Column 5 Lines 30+ the comparison of characteristic values and thereby meets the limitation. Applicant further argues, on pages 21-23, that the application further teaches the following "the signal processing device and method wherein said comparing means performs the comparing operation on a basis of the distance as determined by using a predetermined distance scale between vectors formed at least one of the amplitude of the signal in the first signal

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section, the spectrum of the signal in the first signal section, the linear prediction coefficient of the signal in the first signal section, the histogram of a predetermined component of the signal in the first signal section, the mean value of the predetermined component of the signal in the first signal section, the difference in the predetermined signal component of the signal in the first signal section, the number of changes in the state of the signal in the first signal section and the time of a change in the state of the signal in the first signal section" as recited in Claims 21 and 27. Nafeh discloses the distance of components and other claimed limitations and describes these components in Column 3 Lines 20-56. Although, all of applicants points are understood the examiner cannot agree and the rejection is maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12; 14-38; 40-54 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nafeh (US 5,343,251) in view of Takahashi et al (US 5,966,495).

#### **[claims 1 & 27]**

In regard to Claims 1 and 27, Nafeh discloses a signal processing device and method comprising:

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- a first signal section detecting means for detecting a first signal section from an input signal including at least the first signal section and the remaining signal section on a time division basis (Figure 1a shows the detecting of the first signal section as further described in Column 2 Lines 40+);
- a first signal extracting means for extracting the signal in the first signal section from the input signal in accordance with a result of the detection by the first signal section (Column 2 Lines 63+ through Column 3 Lines 1-16 describes the extracting of the signal as a result of detecting the first signal section); and
- a recording means for recording each signal extracted from the input signal by the first signal extracting means (Figure 1a shows the recording means in VCR 20); however fails to disclose
- an index information extracting means for extracting information from said first signal section to be used as a user-selectable index representing said recorded first signal and display means for displaying said index.

Takahashi et al teaches a system that extracts index information as seen in Figure 19 s706. The information is extracted from the information signals to provide an index as seen in Figure 13 and described in Column 14 Lines 59+ through Column 15 Lines 1-12 that recite that portions of the signal "are extracted from the index information."

Additionally, Column 18 Lines 24-35 describes the extraction of portions of information to produce an index. As described by Nafeh and taught by Takahashi the extraction of

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information to form an index allows for a system to provide desired portions to be searched and reproduced efficiently. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the system, as disclosed by Nafeh, for recording and extracting signals and further provide the system the ability to extract index information to form and display an index, as taught by Takahashi et al.

**[claims 2 & 28]**

In regard to Claims 2 and 28, Nafeh discloses a signal processing device and method further comprising a characteristic value extracting means for extracting the characteristic values characterizing the first signal from the detected first signal section, wherein said recording means records the characteristic values of the first signal in association with the first signal (Column 3 Lines 20-57 describes the processing the characteristic values that are extracted from the signal).

**[claims 3 & 29]**

In regard to Claims 3 and 29, Nafeh discloses a signal processing device and method wherein said first signal section detecting means detects said first signal section from said input signal on the basis of a characteristic pattern of the first signal appearing in said input signal at predetermined time intervals and a characteristic value reflecting the probability of the first signal appearing in the input signal (Column 5 Lines 30-67 through Column 6 Lines 1-12 describes the detecting of the first signal section on the basis of characteristic patterns and wherein the probability of the characteristic value is calculated).

**[claims 4 & 30]**

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In regard to Claims 4 and 30, Nafeh discloses a signal processing device and method wherein said first signal section detecting means detects said first signal section on the basis of predetermined guide information which is prepared corresponding to said input signal (Column 3 Lines 20-57 describes the basis of the prepared corresponding to the input signal).

**[claims 5 & 31]**

In regard to Claims 5 and 31, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is amplitude of the signal in the first signal section (Column 3 Lines 34-36 and Column 3 Lines 60+ describes the signal processing device wherein the changes in amplitude are measured between signals/segments).

**[claims 6 & 32]**

In regard to Claims 6 and 32, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a spectrum of the signal in the first signal section (Column 3 Lines 37-48 describes the spectrum of the signal wherein the change between signals/segments are determined).

**[claims 7 & 33]**

In regard to Claims 7 and 33, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a linear prediction coefficient of the signal in the first signal section (Column 5 Lines 52-67 describes the linear prediction coefficient of the signal in the first section).

**[claims 8 & 34]**



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In regard to Claims 8 and 34, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is a histogram of a predetermined component of the signal in the first signal section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

**[claims 9, 10, 35, & 36]**

In regard to Claims 9, 10, 35, and 36, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is mean value and difference of the predetermined component of the signal in the first signal section (Column 6 Lines 6-50 describes the calculation of the average value of the predetermined components).

**[claims 11 & 37]**

In regard to Claims 11 and 37, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is the number of changes of the state of the signal in the first signal section (Column 6 Lines 40+ describes the characteristic value wherein the first signal is the number of changes that take place between segments).

**[claims 12 & 38]**

In regard to Claims 12 and 38, Nafeh discloses a signal processing device and method wherein said characteristic value characterizing said first signal is the time of the change of the state of the signal in the first signal section (Column 5 Lines 12-27

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describes the signal processing wherein the time change determines the state of the signal).

**[claims 14 & 40]**

In regard to Claims 14 and 40, Nafeh discloses a signal processing device and method wherein said index information is an edited signal obtained by editing said first signal (Column 1 Lines 15-55 describes the editing of the first signal).

**[claims 15, 16, & 41]**

In regard to Claims 15, 16, and 41, Nafeh discloses a signal processing device and method wherein said edited signal obtained by editing said first signal comprises a set of signals at the time when the state of said first signal changes which represent the start or ending part of the signals (Column 5 Lines 12-27 describes the timing of the segments/signals which comprises the various signals).

**[claims 17 & 42]**

In regard to Claims 17 and 42, Nafeh discloses a signal processing device and method wherein said index information extracting means extract the signal at a time when the state of said first signal changes (Figure 1a shows the extracting of the signal at the time when the state of the first signal changes as further described in Column 3 Lines 20-56).

**[claims 18 & 43]**

In regard to Claims 18 and 43, Nafeh discloses the signal processing device and method further comprising a comparing means for comparing characteristic values respectively characterizing two first signals recorded by said recording means and

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discarding one of the recorded two first signals when the characteristic values of the two first signals are determined to be substantially the same (Column 5 Lines 30+ describes the comparing of characteristic values that characterize different first signals).

**[claims 19 & 44]**

In regard to Claims 19 and 44, Nafeh discloses the signal processing device and method wherein said comparing means is detects agreement/disagreement of the first signals in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 25+ describes the comparing of the first signals in a part of the section or entire section that compares to the characteristic values).

**[claims 20 & 45]**

In regard to Claims 20 and 45, Nafeh discloses the signal processing device and method wherein said comparing means detects the degree of similarity of the first signals in a part of the section or in the entire section by comparing said characteristic values (Column 6 Lines 6+ describes the detection of similarity between the first segment and the entire segment).

**[claims 21 & 46]**

In regard to Claims 21 and 46, Nafeh discloses the signal processing device and method wherein said comparing means performs the comparing operation on a basis of the distance as determined by using a predetermined distance scale between vectors formed at least one of the amplitude of the signal in the first signal section, the spectrum of the signal in the first signal section, the linear prediction coefficient of the signal in the first signal section, the histogram of a predetermined component of the

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signal in the first signal section, the mean value of the predetermined component of the signal in the first signal section, the difference in the predetermined signal component of the signal in the first signal section, the number of changes in the state of the signal in the first signal section and the time of a change in the state of the signal in the first signal section (Column 3 Lines 20-56 describes the components that comprise a histogram wherein the predetermined component of the signal).

**[claims 22 & 47]**

In regard to Claims 22 and 47, Nafeh discloses a signal processing device and method further comprising:

- an index information specifying means for specifying desired index information from said displayed plurality of pieces of index information (Figure 1a shows the extraction of index information which represents the first signal as further described in Column 2 Lines 55-63 and Column 3 Lines 20-57); and
- a retrieving means for retrieving the first signal corresponding to said specified index information (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information).

**[claims 23, 24, 48, 49, & 50]**

In regard to Claims 23, 24, 48, 49, and 50 Nafeh discloses the signal processing device and method further comprising:

- a retrieving means for retrieving the first signal substantially agreeing with said first signal from said recording means, using said first signal in a part

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of the section or in the entire section or a characteristic value characterizing the first signal as retrieving condition (Column 7 Lines 20-40 describes the retrieving means used for retrieving specified index information)..

**[claims 25, 26, 51, & 52]**

In regard to Claims 25, 26, 51, and 52, Nafeh discloses the signal processing device and method further comprising: a measuring means for measuring the number of times and/or the hours of appearances of a same first signal (Figure 7 Lines 45-57 describes the measuring of the number of occurrences that a segment occurs within the signal).

**[claims 53 & 54]**

In regard to Claims 53 and 54, Nafeh discloses a signal processing device and method wherein said input signal comprises a video signal and/or an audio signal and said first signal covers a commercial message section (Column 7 Lines 30-57 describes that the first signal covers a commercial message section).

***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent



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